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Submission number	8924	
PCT application number	PCT/EP03/50767	
Date of receipt	30 October 2003	
Receiving Office.	European Patent Office, The Ha	gue
Your reference	CR00570EP	
Applicant	MOTOROLA INC	
Number of applicants	4	
Country		
Title	ORTHOGONAL FREQUENCY I CHANNEL ESTIMATION TRAC	
Documents submitted	Fees.PDF application-body.xml fee-sheet.xml pct101.GML request.xml	Pct101.PDF draw62.pdf package-data.xml pct101u.GML spec62.pdf
Submitted by	CN=A. Chambers,O=Motorola,C	DOCKETED EIPD
Method of submission	Online	EIPD
Date and time receipt generated	30 October 2003, 15:46:41	31 OCT 2003 New 3000 2003
Digest	2C:1F:15:0C:78:16:BD:4A:57	NAG 30 JU 2004

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	For receiving Office use only	BATEDO 7 / 5 0 7 6 7
l	International Application No.	PCT/EP03/50767
2	International Filing Date	(3 0 10 2003) 3 0 OCT 2003
3	Name of receiving Office and "PCT International Application"	EUROPEAN PATENT OFFICE PCT INTERNATIONAL APPLICATION
4	Form - PCT/RO/101 PCT Request	
<b>-4</b> -1	Prepared using	epoline® online filing PCT plug-in (updated 30.10.2003)
-5	Petition  The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
-6	Receiving Office (specified by the	European Patent Office (EPO) (RO/EP)
-7	Applicant's or agent's file reference	CR00570EP
	Title of invention	ORTHOGONAL FREQUENCY DIVISION MULTIPLEX CHANNEL ESTIMATION TRACKING AND EQUALISATION
<u> </u>	Applicant	
I-1	This person is:	applicant only
1-2	Applicant for	all designated States except US
1-4	Name	MOTOROLA INC
1-5	Address:	1303 E.Algonquin Road Schaumburg, IL 60196 United States of America
11-6	State of nationality	บร
11-7	State of residence	us
11-8	Telephone No.	01256 790392
11-9	Facsimile No.	01256 811319
II-10	e-mail	derek.mccormack@motorola.com
11-11	Applicant's registration No. with the Office	000000
111-1	Applicant and/or inventor	
111-1-1	This person is:	applicant and inventor
III-1-2	Applicant for	US only
III-1 <b>-4</b>	Name (LAST, First)	MUCK, Markus
II <b>-</b> 1-5	Address:	67-69 Rue de la Colonie F-75013 Paris France
I;I-1-6	State of nationality	FR
111-1-7	State of residence	FR

CR00570EP

2/5

#### **PCT REQUEST**

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Applicant and/or inventor applicant and inventor This person is: III-2-1 US only Applicant for 111-2-2 DE COURVILLE, Marc Name (LAST, First) 111-2-4 43 Rue Du Moulin Vert 111-2-5 Address: F-75014 Paris France FR State of nationality 111-2-6 FR State of residence 111-2-7 Applicant and/or inventor 111-3 applicant and inventor 111-3-1 This person is: US only Applicant for 111-3-2 DEBBAH, Merouane Name (LAST, First) 111-3-4 72 Rue Camille Desmoulins Address: 111-3-5 F-94230 Cachan France FR 111-3-6 State of nationality FR State of residence 111-3-7 Agent or common representative; or **TV-1** address for correspondence The person identified below is hereby/has agent been appointed to act on behalf of the applicant(s) before the competent International Authorities as: LITCHFIELD, Laura Name (LAST, First) IV-1-1 Motorola European Intellectual Property Address: IV-1-2 Operations Midpoint, Alencon Link Basingstoke, Hampshire RG21 7PL United Kingdom 01256 790384 Telephone No. IV-1-3 01256 811319 Facsimile No. IV-1-4

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v	Designation of States	
V V-1	(other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	AP: GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT EP: AT BE BG CH&LI CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE SI
		SK TR and any other State which is a Contracting State of the European Patent Convention and of the PCT OA: BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT
V-2	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH&LI CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN A YU ZA ZM ZW
V-5	Precautionary Designation Statement In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitte under the PCT except any designation(s' of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that tim limit.	
V-6	Exclusion(s) from precautionary	NONE
VI-1	designations Priority claim of earlier regional	
VI-1-1	application Filing date	31 October 2002 (31.10.2002) 02292730.5
VI-1-2		1 -
VI-1-3	Regional Office	EP

#### CR00570EP

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Pr	dority document request					
pri	ne receiving Office is requested to epare and transmit to the International ureau a certified copy of the earlier oplication(s) identified above as item(s):	VI-1				
l In	ternational Searching Authority	European	Patent	Offic	ce (EPO	) (ISA/EP)
1 = 3	eclarations	Number	of declaratio	กร		
1 0	eclaration as to the identity of the ventor	_				
-   -	eclaration as to the applicant's ntitlement, as at the international filing ate, to apply for and be granted a patent	-				
3 Der de	ectaration as to the applicant's nitilement, as at the international filing ate, to claim the priority of the earlier polication	_				
4 0	eclaration of inventorship (only for the urposes of the designation of the United tates of America)	_				
-5 D di	eclaration as to non-prejudicial isclosures or exceptions to lack of overty	_				
	heck list	numt	per of sheets		elect	ronic file(s) attached
R	Request (including declaration sheets)	5			-	
2	Description	17			spec62	.pdf
L_	Claims	4			spec62	.pdf
	betract	1			spec62	.pdf
	Pre-conversion archive	-			† <del>_</del>	
		4			draw62	pdf
	Orawings	<u> </u>			<u>                                     </u>	· <u>r</u>
7	TOTAL	31			T alo	Inneis file(s) etisebad
A	Accompanying items	paper doc	ument(s) att	ached		tronic file(s) attached
8 F	ee calculation sheet	_			Fees.P	DF
la	Figure of the drawings which should accompany the abstract	11				
la	anguage of filing of the international application	English				
S	Signature of applicant, agent or common representative					
1-1	Signed by	Subject: Issuer: EPO 2.0	GB, M DE, D	otorol -Trust	.a, A. C : GmbH,	Chambers D-Trust for
1.2	Capacity	Authoris	ed Rep	resent	ative (	(Agent 1)
1.2	Capacity	Authoris	ed Rep	resent	ative	Agent .

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		L
10-1 Date of actual receipt of the purported 3 0 CCT 2003	0. 10. 2003	
International application		

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DCT E	REQUEST	CR00570EP
PCIA	Duplicate of original	al printed on Thursday, 30 October, 2003 02:28:32 PM
10-2	Drawings:	I
10-2-1	Received	<b>X</b>
10-2-2	Net received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/EP
10-6	Transmittal of search copy delayed until search fee is paid	
		ERNATIONAL BUREAU USE ONLY
11-1	Date of receipt of the record copy by the International Bureau	

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-1	International Application No.	
-2	International Filing Date	
)-3	Name of receiving Office and "PCT International Application"	
0-4	Form - PCT/RO/101 PCT Request	
0-4-1	Prepared using	epoline® online filing PCT plug-in (updated 30.10.2003)
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	European Patent Office (EPO) (RO/EP)
0-7	Applicant's or agent's file reference	CR00570EP
ı	Title of invention	ORTHOGONAL FREQUENCY DIVISION MULTIPLEX CHANNEL ESTIMATION TRACKING AND EQUALISATION
II .	Applicant	
II-1	This person is:	applicant only
11-2	Applicant for	all designated States except US
11-4	Name	MOTOROLA INC
11-5	Address:	1303 E.Algonquin Road Schaumburg, IL 60196 United States of America
11-6	State of nationality	US
11-7	State of residence	us
11-8	Telephone No.	01256 790392
11-9	Facsimile No.	01256 811319
II-10	e-mail	derek.mccormack@motorola.com
II-11	Applicant's registration No. with the Office	000000
111-1	Applicant and/or inventor	
111-1-1	This person is:	applicant and inventor
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III-1-5	Address:	67-69 Rue de la Colonie F-75013 Paris
		France
III-1- <del>6</del>	_ <b> </b>	FR
111-1-7	State of residence	FR

11-2	Applicant and/or inventor	
11-2-1	This person is:	applicant and inventor
11-2-2	Applicant for	US only
11-2-4	Name (LAST, First)	DE COURVILLE, Marc
II-2-5	Address:	43 Rue Du Moulin Vert
		F-75014 Paris
		France
III-2-6	State of nationality	FR
III-2- <b>7</b>	State of residence	FR
111-3	Applicant and/or inventor	
III-3-1	This person is:	applicant and inventor
ıll-3 <b>-2</b>	Applicant for	US only
III-3-4	Name (LAST, First)	DEBBAH, Merouane
111-3-5	Address:	72 Rue Camille Desmoulins
		F-94230 Cachan
		France
111-3-6	State of nationality	FR
III-3 <b>-</b> 7	State of residence	FR
IV-1	Agent or common representative; or	
	address for correspondence The person identified below is hereby/has	agent
	been appointed to act on behalf of the	
	applicant(s) before the competent International Authorities as:	
IV-1-1	Name (LAST, First)	LITCHFIELD, Laura
IV-1-2	Address:	Motorola European Intellectual Property
	ì	Operations
		Midpoint, Alencon Link
		Basingstoke, Hampshire RG21 7PL
		United Kingdom
IV-1-3	Telephone No.	01256 790384
IV-1-4	Facsimile No.	01256 811319

V	Designation of States	
V-1	Regional Patent	AP: GH GM KE LS MW MZ SD SL SZ TZ UG ZM
];	(other kinds of protection or treatment, if	ZW and any other State which is a
	any, are specified between parentheses after the designation(s) concerned)	Contracting State of the Harare Protocol
		and of the PCT
		EA: AM AZ BY KG KZ MD RU TJ TM and any
	1	other State which is a Contracting State
	1	other State Which is a Contracting beace
		of the Eurasian Patent Convention and of the PCT
		EP: AT BE BG CHELI CY CZ DE DK EE ES FI
		FR GB GR HU IE IT LU MC NL PT RO SE SI
		SK TR and any other State which is a
		Contracting State of the European Patent
		Convention and of the PCT
		OA: BF BJ CF CG CI CM GA GN GQ GW ML MR
		NE SN TD TG and any other State which is
		a member State of OAPI and a Contracting
		State of the PCT
V-2	National Patent	AE AG AL AM AT AU AZ BA BB BG BR BY BZ
	(other kinds of protection or treatment, if	CA CHALI CN CO CR CU CZ DE DK DM DZ EC
	any, are specified between parentheses after the designation(s) concerned)	EE EG ES FI GB GD GE GH GM HR HU ID IL
	Sites the designation(s) concerned)	IN IS JP KE KG KP KR KZ LC LK LR LS LT
	!	LU LV MA MD MG MK MN MW MX MZ NI NO NZ
		OM PG PH PL PT RO RU SC SD SE SG SK SL
		SY TJ TM TN TR TT TZ UA UG US UZ VC VN
		a transfer of the contract of
		YU ZA ZM ZW
V-6	Precautionary Designation Statement	
	In addition to the designations made under items V-1, V-2 and V-3, the	
	applicant also makes under Rule 4.9(b)	
	all designations which would be permitted	<u>d</u>
	under the PCT except any designation(s)	)
	of the State(s) indicated under item V-6 below. The applicant declares that those	
	additional designations are subject to	
	confirmation and that any designation	
	which is not confirmed before the expiration of 15 months from the priority	
	date is to be regarded as withdrawn by	
	the applicant at the expiration of that time	e
	lirrit.	WANTE
V-6	Exclusion(s) from precautionary designations	NONE
V1-1	Priority claim of earlier regional	
VI-1-1	application Filing date	31 October 2002 (31.10.2002)
VI-1-1		02292730.5
VI-1-3	Regional Office	EP

-2	Priority document request		
	The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier	VI-1	
	application(s) identified above as item(s):	Offi	ce (EPO) (ISA/EP)
/II-1	International Searching Authority Chosen	European Patent Offi	.Ce (EPO) (ISA/EL)
/III	Declarations	Number of declarations	
/II-1	Declaration as to the identity of the inventor	-	
<b>∕111-2</b>	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	-	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	-	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	-	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	-	
IX	Check list	number of sheets	electronic file(s) attached
X-1	Request (including declaration sheets)	5	-
X-2	Description	17	spec62.pdf
IX-3	Claims	4	spec62.pdf
IX-4	Abstract	1	spec62.pdf
IX-2b	Pre-conversion archive	_	-
IX-5	Drawings	4	draw62.pdf
IX-7	TOTAL	31	
	Accompanying items	paper document(s) attached	electronic file(s) attached
8-XI	Fee calculation sheet	-	Fees . PDF
IX-19	Figure of the drawings which should accompany the abstract	11	
IX-20	Language of filing of the international application	English	

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10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	

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10-4	Date of timely receipt of the required corrections under PCT Article 11(2)		
10-5	International Searching Authority	ISA/EP	
10-6	Transmittal of search copy delayed until search fee is paid		

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